

WHAT IS CLAIMED IS:

1. An optical pickup, comprising: a light emitting unit
used for emitting light, an object lens used for collimating
5 the light from the light emitting unit to form a beam of light
and focusing the beam of light to a recording surface of an
optical disc, and a correction unit used for correcting an
aberration caused by a tilt of an optical axis of the beam of
light relative to the recording surface of the optical disc,
10 wherein

said correction unit has a light transmitting surface
capable of allowing a transmission of the light from the light
emitting unit, with a plurality of electrodes arranged on a
plurality of divided areas of the light transmitting surface,
15 said correction unit correcting the aberration by applying
voltages, corresponding to said tilt of the optical axis of
the beam of light relative to the recording surface of the
optical disc, to said electrodes and changing phases of the
beam of light passing through the divided areas of the light
20 transmitting surface, and

said electrodes consisting of:

a first electrode arranged on at least one area of
the light transmitting surface of said correction unit at
a position maximizing an aberration, caused by a radial
25 tilt of the optical axis of the beam of light relative to

the recording surface of the optical disc in a radial direction of the disc; and

5 a second electrode arranged on at least one area of the light transmitting surface of said correction unit at a position minimizing the aberration, caused by the radial tilt of the optical axis of the beam of light relative to the recording surface of the optical disc.

10 2. The optical pickup according to claim 1, wherein a summed length of said first and second electrodes in the radial direction of the optical disc ranges from 50% to 70% of a diameter of said object lens, and a length of said first or second electrode in a tangential direction of the optical disc ranges from 40% to 50% of the diameter of said object lens.

15 3. The optical pickup according to claim 1, wherein said electrodes arranged on the divided areas of the light transmitting surface of said correction unit further comprise:

20 a third electrode arranged on at least one area of the light transmitting surface of said correction unit at a position maximizing an aberration, caused by a tangential tilt of the optical axis of the beam of light relative to the recording surface of the optical disc in a tangential direction of the disc;

25 a fourth electrode arranged on at least one area of the

light transmitting surface of said correction unit at a position minimizing the aberration, caused by the tangential tilt of the optical axis of the beam of light relative to the recording surface of the optical disc;

5 a fifth electrode arranged to be aligned with said third and fourth electrodes at a position close to an edge of the light transmitting surface outside the third electrode; and

a sixth electrode arranged to be aligned with said third and fourth electrodes at a position close to an edge of the
10 light transmitting surface outside the fourth electrode.

4. The optical pickup according to claim 2, wherein said electrodes arranged on the divided areas of the light transmitting surface of said correction unit further comprise:

15 a third electrode arranged on at least one area of the light transmitting surface of said correction unit at a position maximizing an aberration, caused by a tangential tilt of the optical axis of the beam of light relative to the recording surface of the optical disc in a tangential
20 direction of the disc;

a fourth electrode arranged on at least one area of the light transmitting surface of said correction unit at a position minimizing the aberration, caused by the tangential tilt of the optical axis of the beam of light relative to the
25 recording surface of the optical disc;

a fifth electrode arranged to be aligned with said third and fourth electrodes at a position close to an edge of the light transmitting surface outside the third electrode; and

a sixth electrode arranged to be aligned with said third
5 and fourth electrodes at a position close to an edge of the
light transmitting surface outside the fourth electrode.

[illegible]